

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: August 13, 1996
Date Received: August 8, 1996
Project: Metro Self Monitor, PO #M54151
Date Samples Extracted: August 8, 1996
Date Extracts Analyzed: August 9, 1996

**RESULTS FROM THE ANALYSIS OF THE PROCESS WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M54151	1.0	0.76	1.1	0.06
Method Blank	<0.05	<0.05	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 71316 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	1.0	1.1	10	0-20
Copper	mg/L (ppm)	0.76	0.78	3	0-20
Nickel	mg/L (ppm)	1.1	1.1	0	0-20
Zinc	mg/L (ppm)	0.06	<0.05	nm	0-20

Laboratory Code: 71316 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	1.1	91	92	80-120	1
Copper	mg/L (ppm)	5	0.76	91	92	80-120	1
Nickel	mg/L (ppm)	10	1.1	91	92	80-120	1
Zinc	mg/L (ppm)	5	0.06	92	94	80-120	2

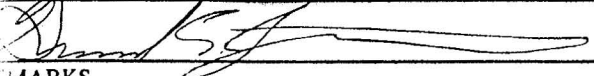
Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	Acceptance Criteria
Chromium	mg/L (ppm)	5	99	80-120
Copper	mg/L (ppm)	5	97	80-120
Nickel	mg/L (ppm)	10	98	80-120
Zinc	mg/L (ppm)	5	98	80-120

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

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2:21

Send Report To: Alaskan Copper Works Contact GERARD Thompson
Company 628 HANFORD ST
Address Seattle WA 98134
City, State, Zip 206 382-8379
Phone # () 8-8-96
Date

LINE NO.	PROJECT NAME	PURCHASE ORDER #
7238	metro Self monitor	M 54151
COLLECTORS (signature)		PROJECT LOCATION
		3200 6th Ave S.
REMARKS	SAMPLE DISPOSAL INFORMATION	
	<input type="checkbox"/> Dispose after 30 days <input checked="" type="checkbox"/> Return Samples <input type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: <i>Rodney L. Pearrey</i>	Rodney L. Pearrey	Alaska Copper	8/8/86	1305
Received by: <i>John P. Wright</i>	John P. Wright	F + B Inc.	8-8-96	1305
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

August 13, 1996

INVOICE # 96ACU0813-1
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M54151: Results of testing requested by
Gerry Thompson, Project Manager for material submitted on August 8, 1996.

1 process water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

August 13, 1996

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on August 8, 1996 from your Metro Self Monitor, PO #M54151 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

keh
Enclosures
ACU0813R.DOC